

Applicants: RAVI, Ashoke et al.
Serial No.: 10/608,549
Attorney Docket No.: P-5781-US

Amendments to the Specification:

Please replace paragraph [0066] with the following amended paragraph:

[0066] FIG. 7 schematically illustrates a tuning circuit 700 with single-ended phase comparison in accordance with an exemplary embodiment of the invention. Circuit 700 may include, for example, a master oscillator 701, two slave oscillators 702 and 703, a ~~[[gate]]~~ phase detector 704, a subtractor 705, a loop filter 706, and a tuning control 708. These components may be arranged and/or connected, for example, as illustrated schematically in FIG. 7.

Please replace paragraph [0067] with the following amended paragraph:

[0067] ~~[[Gate]]~~ Phase detector 704 may include, for example, an analog multiplexer or a XOR gate. Subtractor 705 may include, for example, a subtractor unit or an adder unit, depending on specific implementations. In some embodiments, subtractor 705 and loop filter 706 may be implemented using one integrated unit 707.

Please replace paragraph [0069] with the following amended paragraph:

[0069] ~~[[Gate]]~~ Phase detector 704 may receive an in-phase (I) output signal from slave oscillator 702 and a quadrature (Q) output signal from slave oscillator 703. ~~[[Gate]]~~ Phase detector 704 may compare the phase difference of the I and Q signals, and may produce an output signal responsive to the comparison result. Subtractor 705 may subtract the output signal of ~~[[gate]]~~ phase detector 704 from a reference signal having a reference voltage. In an exemplary embodiment, the reference voltage may be, for example, half of the maximum applied voltage of circuit 700. Subtractor 705 may produce a control signal that may be provided as feedback to slave oscillators 702 and/or 703. Based on the control signal, the free-running frequency of slave oscillators 702 and/or 703 may be tuned,

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modified and/or adjusted to more closely match the injected frequency, such that slave oscillators 702 and/or 703 may better acquire and/or lock onto the injected frequency.